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Plankton research: Studies on the biology, physiology, biochemistry and genetics of plankton organisms both under laboratory and field conditions. Biological and biochemical oceanography. Environment-organism and organism-organism interrelationships.

Experimental biology: Research on metabolic rates and routes in microorganisms, plants and animals. Respiration; nutrition; life cycles.

Biochemistry, physiology and behaviour: Biochemical research on marine organisms; photosynthesis; permeability; osmoregulation; ionregulation; active transport; adaptation; analyses of environmental effects on functions (tolerances, rates and efficiencies of metabolism, growth and reproduction) and structures; migrations; orientation; general behaviour.

Biosystem research: Experimental biosystems and microcosms. Energy budgets: flow routes and balance sheets of energy and matter in the marine environment. Interspecific interrelationships, food webs. Dynamics and struc-

tures of microbial, plant and animal populations. Use, management and protection of living marine resources. Effects of man on marine life, including pollution.

Evolution: Investigations on speciation, population genetics, and biological history of the oceans.

Theoretical biology related to the marine environment: Concepts and models of quantification and mathematical formulation; system analysis; information theory.

Methods: Apparatus and techniques employed in marine biological research; underwater exploration and experimentation.

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